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My two cents' worth on contemporary Indian coins.

A comparative study.

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Abstract: Backed by my own research and analysis, this paper chronicles my two cents' worth on contemporary Indian coins, and their importance when it comes to design for communication.

Coins, as a platform for communication, must be designed with utmost care and responsibility. They are exchanged by a billion hands, are the face of monetary worth, tools of valuation, ambassadors of a nation's capital, and, more importantly, coins have countless aspects of design, which must be intricately and seamlessly woven together for them to serve their ultimate purpose.

In moments of life, when looking for spare change, or when settling a dispute with a toss, the shine of a coin is dominant. However in this light, our mind never finds the time to ponder over the origins of these small yet alluring pieces of metal, the elements they bare, and the meaning behind these cryptic elements.

This paper is powered by that very curiosity.

It documents an analytical study of Indian coins, with respect to their type-display, elements, weight, layout, design, and general lifespan. It also analyses the variance in Devanāgarī and Roman typefaces, which are carved on plates, then transferred to coins and the stages a coin design passes through before reaching its final outcome.

The focus of this exercise was to validate the effort, endeavor, craftsmanship that goes into designing coins, and carving bi-lingual type on them.

Key words: Old and new coin, coin design, communication design, use of typography, sensitivity and finis, usage, utility, aesthetics, identification of mints, minting process, type design, type display, Devanāgarī type, Roman type.

1. Introduction

Designing of our coins took place in 1964 (Aluminium series), 1990 (Stainless-steel series), 2004 ('Unity in Diversity' series), 2008 (Natya Mudra, IT, Connectivity series), and in 2011 (New floral design). And each of these redesigning processes have left us with a new design: Novel in quality, size, weight, graphic, and type.

However, a comparative study of the evolution of our coins gives rise to certain, intrusive questions.

Was the redesign really necessary? Was ample care given while designing and selecting the type? And was it enough?

To understand the design choices better, we must first realize that there are enormous differences between the traditional and contemporary processes of minting - both having their pros and cons; and also between how type - its layout and selection - influences and impacts design, aesthetics, and utility - convenience and user-friendliness.

When it comes to graphic and communication design, typography is at its pinnacle and heart. Being the most vital and integral aspect of the design, its fineness, structure, detailing, and character allows the design to reach out and speak to the individuals that it was originally intended for. The type must be chosen with utmost care, patience, effort, and tones of research, making sure that there is no flaw that follows after the design is completed.

The responsibility for coinage vests with the Government of India in accord with the Coinage Act, 1906.

The Government has the sole right to mint coins. It is also responsible for the designing and minting the various denominations.

The Indian Government operates four mints.

Located at:

- Mumbai, Maharashtra
- Alipore (Kolkata), West Bengal
- Saifabad and Cherlapally (Hyderabad), Andhra Pradesh
- Noida, Uttar Pradesh

The coins are issued for circulation only through the Reserve Bank (RBI Act).

2. Identification of Mints

- From the Coins.

- *The Bombay Mint* - The coin has a small dot or diamond under the date of the coin
- *The Kolkata Mint* - Kolkata mint has no mark under the date of the coin (year of issue).
- *The Hyderabad Mint* - Hyderabad Mint has a star under the date of the coin (year of the issue).
- *The Noida Mint* - Noida mint has a dot under the year of issue (coin date). Stainless steel coins started from here.



Figure.1 Identification of mints - The Bombay mint



Figure.2 Identification of mints - The Kolkata mint



Figure.3 Identification of mints - The Hyderabad mint



Figure.4 Identification of mints - The Noida mint

3. Denominations of Coins in India

Coins in India are presently being issued in denominations of 10 paise, 20 paise, 25 paise, 50 paise, one rupee, two rupees, five rupees, and ten rupees. Coins up to 50 paise are called 'Small coins' and coins of rupee one and above are called 'Rupee Coins'. Coins can be issued up to the denomination of Rs.1000 as per the Coinage Act, 1906.

4. How are coins made?

Earlier, the designs of coins were sketched and rendered by hand. They were then transferred to p.o.p plates. After the transfer, each element on the coin design was carved keeping a low relief in mind. This plate was called the negative. After the negative was ready, an Araldite solution was poured to get the positive. Araldite is a white solution which was used in place of metal for testing. The design of the plates was then transferred to the computerized machine which in turn transferred the design onto metal. Perhaps, today the handwork is completely skipped. The p.o.p segment is skipped and the design and layouts are made on the computers directly. Then the same procedure is carried on for minting.

In my opinion, coins today have lost their value in terms of aesthetics, design, type and utility.



Figure.5.1 The process - The sketch



Figure.5.2 The process - The positive and the negative

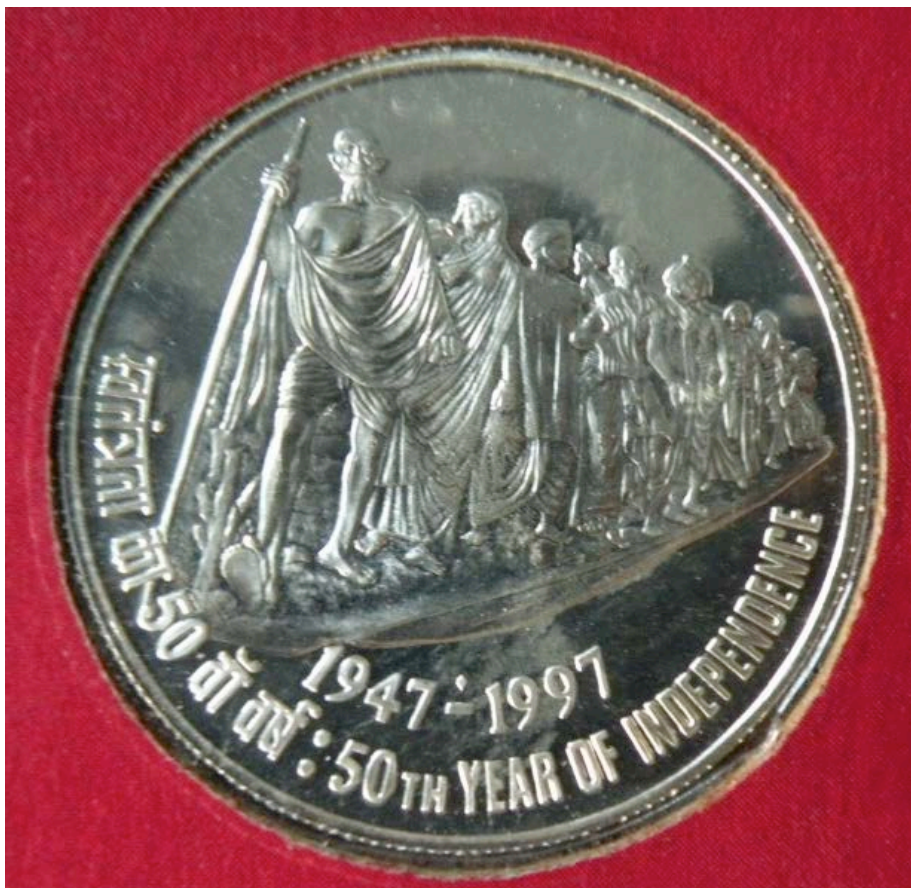


Figure.5.3 The process - The coin



Figure.6.1 The process - The Sketch



Figure.6.2 The process - The positive



Figure.6.3 The process - The coin

5. Elements on a coin.

OLD			NEW		
	Roman	Devnagari		Roman	Devnagari
India	Yes	Yes	India	Yes	Yes
Value	Yes	No*	Value	Yes	No*
Rupees	Yes	Yes	Rupees	Symbol	N.A

*The value is only mentioned in Roman as the English numerals are accepted worldwide. Plus the coin has very little surface area to design upon. Thus Devanāgarī numerals are not mentioned.



Figure.7 The elements

6. Type display.

- **Selection of the font** is a very important process. The fonts must be specially hand-crafted solely for coins as forgery becomes easier with the availability of the fonts on digital platforms.

The fonts that were used earlier were hand-crafted exclusively for coins, and were available only at the mints. Today, the fonts used are available to anyone with a computer, making forgery relatively easier.

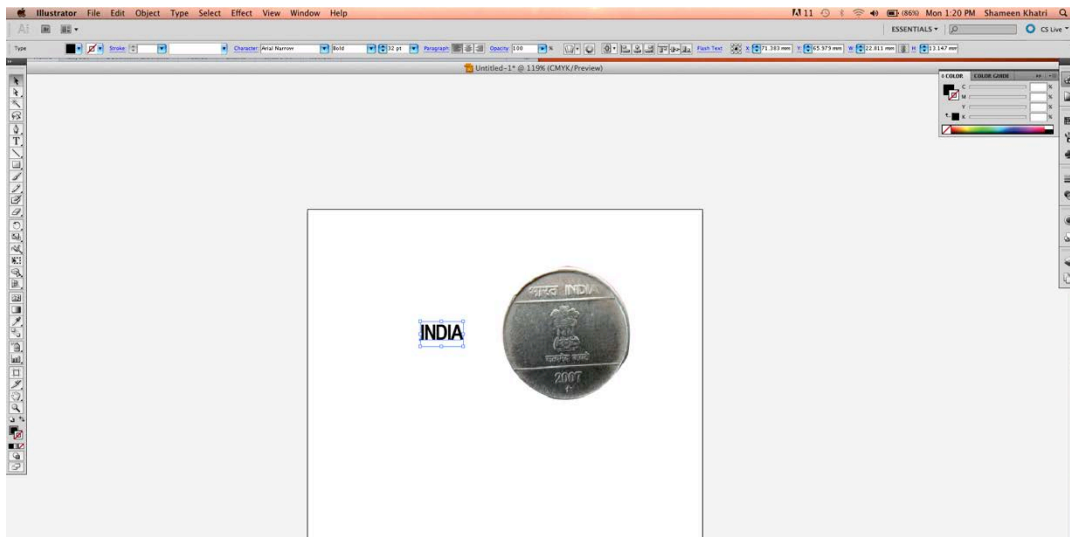


Figure.8.1 Type display - Forgery with availability of fonts

- Earlier, type was designed on a **curve**. Today, however, it flows on a straight line. Type on a curve observes more space as opposed to that on a straight line; hence making the matter more legible.
- Earlier, type was drawn by hand and optical spacing was used to design the coins. Today, the designs being made on a computer we notice mechanical spacing between the letters. For example the word 'INDIA' earlier looked neat and well-spaced. But in the design today, it looks cramped and hurts the eye if you stared at.
- **The rules of the margin.** Earlier, the coins had a sufficient margin that was left on the sides of the text for it to be clear. The higher margin also saves the coin from getting damaged, thus increasing its life. Margins and alignments are terms we learn in our early years of design.



Figure.8.2 Type display - Type on a curve



Figure.8.3 Type display - The margins

7. The Devnagari and Roman issues.

- Both Devnagari and Roman typefaces have their own distinctive sets of **design rules**.
- The letter height ('x' height) itself is different in both.
- The curves also differ and the 'shirorekha' in the devnagari script creates problems. The shirorekha on the 'bh' in the devnagari script is absent.
- The earlier coins follow the rule correctly. No doubt the latest design also has this point well taken care of. Perhaps, in the new coin the shirorekha gives the feeling of touching/cutting through the 'bh'.



Figure.9.1 Devnagri and Roman Type display

- The word Bharat is written on a **curve**, the 'rh' and 'th' followed sinked spacing, in the earlier coins. This was because each letter was drawn keeping optical spacing. Whereas in the recent coins, these akshars witness a lager gap between each other. Thus confusing letter spacing in the word.
- The 'rh' in the new coin has lost the identity and roundness of a 'rh' and can be mistaken as the 'ae' ki मात्रा.



Figure.9.2 Devnagri and Roman Type display

8. The design.

Clean design and minimalism doesn't always translate to good utility.

- Coins today do not have a good life. Elements on them wash out due to overuse, rough usage, or weathering. This did not happen this easily on older coins. The proof is that the coins that were made in 2000-2003 are still in use and most of them are in good shape. This is mostly because of higher margins of the old coins.
- **The fading** of the coin is not only a problem of loss of value, but also the loss of identity of the country. If our emblem, i.e. the Ashoka pillar fades off, the Indian coin loses its innate identity. A faceless, identity-less, coin belongs to no particular country.



Figure.10.1 The design - Fading of elements



Figure.10.2 The design - Fading of elements

- It is also a problem to the blind who solely depend on their sense of touch to identify and differentiate coins. The new coins do not even vary in weight or do not have a major difference in size making it more difficult to tell its value. Earlier, our anna or paise coins had different shapes i.e. flower/star/rounded squares. This was done for the blind to understand the value of the coin just by the shape.
- Although the Rs 2 new coin is slightly heavier in weight than the Re 1 new coin, it becomes difficult to identify them because of the similarity in the size. Whereas, in the old coin, because of shape and weight, identification becomes easy.

* The embossing is still found in the best state on the old coins today. The secret is that the margins were maintained and the relief was kept low while designing.

YEAR 1992-2008			
Value	Metal	Weight	Diameter
Rs.5	Cupro-Nickel	9.00 gms	23 mm
Rs.2	Cupro-Nickel	6.00 gms	27 mm
Re.1	Ferritic Stainless Steel	4.85 gms	25 mm
.50p	Ferritic Stainless Steel	3.79gms	22 mm

YEAR 2008-2012			
Value	Metal	Weight	Diameter
Rs.10	Cupro-Nickel	5.62 gms	27 mm
Rs.5	Nickel-brass	6.00 gms	23 mm
Rs.2	Ferritic Stainless Steel	5.62 gms	25 mm
Re.1	Ferritic Stainless Steel	4.85 gms	22 mm
.50p	Ferritic Stainless Steel	3.79 gms	19 mm

Table.1 The design - Properties of a coin ; metal, weight, dimension

- In spite of having two words (rupees, roman & rupiah, devnagari) removed from the design, the design in the new coin still looks cramped up without any increase in breathing space.



Figure.10.3 The design - Space

- While designing any piece, we must keep in mind the **hierarchy** of its elements. By hierarchy I mean importance or flow of communication. Thus the emblem should be at top most hierarchy as it communicates to us the country to which the coin belongs. This in the new coin has been given the same importance as the year of design.



Figure.10.4 The design - Hierarchy of elements

- The emblem design, the Ashoka pillar, has been deformed in the new coin and is made to look fat and stout which appears out of proportion.



Figure.10.5 The design - The Ashoka Pillar

- The placement of the value in numeric on the front of the coin- “rupiah 2 rupees” is sensibly placed in the old design. Whereas, in the new design the value reads as “2 rupiah rupees”.



Figure.10.6 The design - The symbol

Controversy

The two-rupee coin issued from 2006 by the Reserve Bank, in stark contrast to the earlier coin, is rounded and simpler in design, without the map of India. The coin has already faced strong criticism for being difficult to recognize by the **visually impaired**. Most controversially, it features an equal-armed cross with the beams divided into two rays and with dots between adjacent ones. According to RBI, this design represents ‘four heads sharing a common body’ under a new ‘Unity in Diversity’ theme. However, **Hindu nationalists** have challenged the symbol and charged that it looks like a **Christian cross**: resembling the symbol on the deniers issued by **Louis the Pious**.



Figure.11 The controversy - Christian cross

9. Conclusion.

- I have come to the realized that tremendous care, painstaking thoroughness, patience, and technique are required to design coins.
- The coin must not only have aesthetic value, but also have longevity - a life of 20-25 years, at the very least, and should have good utility; failing which, the coin is worthless.
- It is necessary to place each element in the correct size or proportion to enhance its utility.
- Clearly, the older coins have proved to be user-friendlier due to less clutter and well-spaced type, inspite of there being more elements on it.
- Original and hand crafted type or design over powers digitally created artworks or the fonts that are available online.
- The carving of type is a tedious task. Thus, it must have enough surface area that it is readable and so that the type does not lose its character at any cost.

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